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Thomas Arend

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EXAMINER

COUGHLAN, PETER D

ART UNIT

PAPER NUMBER

2129

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/697,433

Applicant(s)

AREND, THOMAS

Examiner

Peter Coughlan

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/10/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Detailed Action

1. This office action is in response to an AMENDMENT entered April 10, 2007 for the patent application 10/697433 filed on October 31, 2003.
2. All previous Office Actions are fully incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 1-14 are pending.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 7, 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims contain the 'sets', which are semantically grouped solution identification rules.' There is no indication, method or

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algorithm described within the specification how the invention groups these 'identification rules' bases on semantics. Paragraph 0057 states that solution identification rules are grouped together if they are 'semantically related' but fails to describe how this is accomplished.

These claims need to be amended or withdrawn from consideration.

Claims 1, 7, 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims state an inference model identifies solutions which are represented in 'sequential order', 'hierarchical order, and 'dynamically adaptive order.' The specification is silent on the determination of 'sequential order', 'hierarchical order, and 'dynamically adaptive order.' There is no system, algorithm or method which explains how 'sequential order', 'hierarchical order, and 'dynamically adaptive order' is achieved.

These claims need to be amended or withdrawn from consideration.

Claims 6, 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. This claim has the additional 'returns solutions that solve the problem indirectly by being further knowledge representations for further inference module' but the specification is silent explaining how this is accomplished. There is no explanation how the invention solves problems indirectly.

These claims need to be amended or withdrawn from consideration.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This claim states 'that analysis by an expert system in the further computer.' The phrase 'expert system' is mentioned within paragraphs 0032, 0075, 0096, 0149, 0160 but what type of expert system is not mentioned. There needs to be a specific 'expert system' disclosed due to the fact there are numerous types with specific advantages to each one.

This claim needs to be amended or withdrawn from consideration.

35 USC § 101

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C. 101 for nonstatutory subject matter.

The computer system must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application. A solution that is forwarded through a service module to the main system is an abstract concept and discloses no practical application. The result has to be a practical application. Please see the interim guidelines for examination of patent applications for patent subject matter eligibility published November 22, 2005 in the official gazette.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. Both the claims and the specification are silent regarding the practical application or use of the invention. The specification narrows the use of the invention to 'business applications', 'supply chain management', 'customer relation management', 'human resources', 'enterprise portals', 'exchanges', 'technology', 'product lifecycle

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management', 'supplier relationship management', 'business intelligence', 'mobile business', 'hosted solutions', 'small and midsize business', 'industry solutions.' All of these are broad concepts used within the business environment, but the specification fails to provide any real world practical purpose, function, or result.

The invention must be for a practical application and either:

- 1) specify transforming (physical thing) or
- 2) have the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

Claims that recite applications in conceptual abstract terms fail to provide a practical application. There must be a result that is a practical application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 12 are rejected under 35 U.S.C. 102(b) (hereinafter referred to as **Leclercq**) being anticipated by Leclercq, 'Semantic mediation for cooperative spatial information systems: The AMUN data model.'

Claim 1.

Leclercq anticipates a main system to execute an application in cooperation with a human user and a remote service system to evaluate problems in the main system (**Leclercq**, p3, C1:13-34; Leclercq discloses a system in which a user can access remote data servers for retrieving data sets. In this example, in Leclercq, the system which the user is on would be equivalent to the 'browser and data clearing house' and the 'main system' of applicant is equivalent to 'remote spatial data server' of Leclercq.), the main system comprising a database (**Leclercq**, p3, C1:13-34; 'Database' of applicant is equivalent to 'data clearing house' of Leclercq.), an application server (**Leclercq**, p3, C1:13-34; Since Leclercq can submit queries to the global system, implies Leclercq functions. Therefore Leclercq has a 'application server.') and a front-end server(**Leclercq**, p3, C1:13-34; Since the 'front-end server' acts as an interface (§0039), the ability of the user to use the 'browser and data clearing house' of Leclercq implies there exists a 'front end server'.), and the service system comprising: a service module configured, to collect problem related data from the main system (**Leclercq**, p3, C1:13-34, p2, C1:12-31; 'Collect problem related data' of applicant is illustrated by 'used

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to query the global system of Leclercq. 'Service module' of applicant illuminated by the fact that Leclercq can generate queries.) said problem related data representing a problem identified about data in the main system (**Leclercq**, p2, C1:12-31; 'Problem related data representing a problem identified' of applicant is equivalent to "a set of agents components to help users discover information' of Leclercq.), an acquisition module configured to acquire knowledge representations (**Leclercq**, p2, C1:12-31; 'Acquisition module' of applicant is disclosed by the 'set of agents' which can 'access data from multiple independent sources' of Leclercq.) a knowledge module configured, to store the knowledge representations and store the knowledge representations with sets of semantically grouped solution identification rules (**Leclercq**, p3, C1:35-47; To store 'knowledge representation' requires a database. 'multidatabase language approach' is one way to store 'knowledge representations.' 'Semantically grouped solution identification rules' of applicant is illustrated by the 'language approach' of Leclercq.), and an inference module configured to process problem related data with knowledge representations to identify solutions, and forward, the solutions through the service module to the main system (**Leclercq**, p4 C1:29 through C1:1; 'Inference module' of applicant is equivalent to 'ISIS mediation approach' of Leclercq.) , wherein the inference module identifies the solutions by applying knowledge representations in at least one of a sequential order, a hierarchical order, and a dynamically adaptive order and (**Leclercq**, p4 Figure 1; Examples of the 'Hierarchical order' is displayed in figure 1 in terms of the 'mediation objects hierarchy' and 'cooperation objects hierarchy' of Leclercq.), wherein the identified solutions are applied to solve the problem identified in

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the main system. (**Leclercq**, abstract; 'Solve the problem' of applicant is equivalent to 'resolving semantic discrepancies' of **Leclercq**. 'Identified solutions are applied' of applicant is performed by the 'AMUN data model' of **Leclercq**.)

Claim 2

Wherein the main system and the service system communicate through remote function call connections provided by the service module. (**Leclercq**, p3, C1:13-34; 'Communications' through a 'remote function call connections' of applicant is equivalent to 'network protocols' of **Leclercq**.)

Claim 3

Wherein the service module monitors the application server and the database according to instructions from the inference module. (**Leclercq**, p3, C1:13-34, p2, C1:12-31, p4 C1:29 through C1:1; 'Service module' of applicant illuminated by the fact that **Leclercq** can generate queries. 'Inference module' of applicant is equivalent to 'ISIS mediation approach.' Thus the service module monitors the application server and the database.)

Claim 4

Wherein the main system and the service system are systems in a client/server configuration. (**Leclercq**, p3, C2:12-18)

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Claim 5

Leclercq anticipates wherein the service system returns solutions that solve the problem directly in the main system. (**Leclercq**, p3, C1:13-34; 'Returns solutions' of applicant is illustrated by 'The browser is used to query the global system, the switch is used to dispatch and rewrite queries on target data source, and finally the map converter server to produce results in picture formats' of **Leclercq**.)

Claim 6

Leclercq anticipates wherein the service system returns solutions that solve the problem indirectly by being further knowledge representations for a further inference module operating for the main system (**Leclercq**, p6, C2:3-24; 'Solve the problem indirectly' of applicant is illustrated by the 'aggregation process defines a complex class from a set of classes' which accomplishes the generation of a 'virtual class by assembling component classes' of **Leclercq**.)

Claim 7.

Leclercq anticipates collecting problem related data from the main system by a service module of a remote service system (**Leclercq**, p3, C1:13-34; **Leclercq** discloses a system in which a user can access remote data servers for retrieving data sets. 'Service module' of applicant is equivalent to the 'browser and data clearing house' of **Leclercq**. 'Main system' of applicant is equivalent to 'remote spatial data server' of **Leclercq**.) said problem related data representing a problem identified about data in the

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main system (**Leclercq**, p2, C1:12-31, 'Problem related data representing a problem identified' of applicant is equivalent to "a set of agents components to help users discover information' of **Leclercq**.) acquiring knowledge representations by an acquisition module of the service system, (**Leclercq**, p2, C1:12-31; 'Acquiring knowledge' of applicant is disclosed by the 'set of agents' which can 'access data from multiple independent sources' of **Leclercq**.) receiving the knowledge representations by a knowledge module; (**Leclercq**, p2, C1:12-31; 'Receiving the knowledge' from a 'knowledge module' of applicant is performed by the 'set of agents' which can 'access data from multiple independent sources' of **Leclercq**.) storing the knowledge representations with sets of semantically grouped solution identification rules by the knowledge module of the service system (**Leclercq**, p3, C1:35-47; To store 'knowledge representation' requires a database. 'multidatabase language approach' is one way to store 'knowledge representations.' 'Semantically grouped solution identification rules' of applicant is illustrated by the 'language approach' of **Leclercq**.); processing problem related data with the knowledge representations by a inference module to identify solutions (**Leclercq**, p4 C1:29 through C1:1; 'Processing problem related data' of applicant is accomplished by the 'ISIS mediation approach' of **Leclercq**.) wherein the inference module identifies the solutions by applying knowledge representations in at least one of a sequential order, a hierarchical, and a dynamically adaptive order (**Leclercq**, p4 Figure 1; Examples of the 'Hierarchical order' is displayed in figure 1 in terms of the 'mediation objects hierarchy' and 'cooperation objects hierarchy' of **Leclercq**.); forwarding the solutions through the service module to the main system

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(**Leclercq**, p3, C1:13-34; 'Forwarding solutions through the service module' of applicant is illustrated by 'The browser is used to query the global system, the switch is used to dispatch and rewrite queries on target data source, and finally the map converter server to produce results in picture formats' of **Leclercq**.); and applying the identified solutions to solve the problem. (**Leclercq**, abstract; 'Solve the problem' of applicant is equivalent to 'resolving semantic discrepancies' of **Leclercq**. 'Identified solutions' of applicant is performed by the 'AMUN data model' of **Leclercq**.)

Claim 11

Program code means for performing all the steps of anyone of the claims 7-10 when the computer program product is run on a computer. (**Leclercq**, p6, The two **examples**, The two examples on page 6 display computer code which is needed for **Leclercq** to run on a computer.)

Claim 12.

Leclercq anticipates an inference module with expertise functionality for evaluating problems (**Leclercq**, p4 C1:29 through C1:1; 'Inference module' of applicant is equivalent to 'ISIS mediation approach' of **Leclercq**.) in a main computer system that executes an application (**Leclercq**, p3, C1:13-34; 'Main computer system' of applicant is equivalent to 'remote spatial data server' of **Leclercq**.), wherein the inference module is adapted to process problem related data with knowledge representations to identify solutions (**Leclercq**, p4 C1:29 through C1:1, abstract; 'Processing problem related data'

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of applicant is accomplished by the 'ISIS mediation approach' of Leclercq. 'Solve the problem' of applicant is equivalent to 'resolving semantic discrepancies' of Leclercq. 'Identified solutions' of applicant is performed by the 'AMUN data model' of Leclercq.), said knowledge representations being stored with sets of semantically grouped solution identification rules (**Leclercq**, p3, C1:35-47; To store 'knowledge representation' requires a database. 'multidatabase language approach' is one way to store 'knowledge representations.' 'Semantically grouped solution identification rules' of applicant is illustrated by the 'language approach' of Leclercq.), the inference module characterized in that the inference module is part of a service system receiving problem related data from the main computer system over a network (**Leclercq**, p2, C2:26-33; 'Over a network' of applicant is equivalent to 'access spatial information resources in a network of systems' of Leclercq.) , said problem related data representing a problem identified about data in the main system (**Leclercq**, p3, C1:13-34, p2, C1:12-31; 'Problem related data representing a problem identified' of applicant is equivalent to "a set of agents components to help users discover information' of Leclercq. 'Main computer system' of applicant is equivalent to 'remote spatial data server' of Leclercq.), and returning solutions to the main system, wherein in a first case, the service system returns solutions that solve the problem directly (**Leclercq**, p3, C1:13-34; 'Returning solutions' of applicant is illustrated by 'The browser is used to query the global system, the switch is used to dispatch and rewrite queries on target data source, and finally the map converter server to produce results in picture formats' of Leclercq.) and, in a second case, the service system returns solutions that solve the problem indirectly by

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being further knowledge representations for a further inference module (**Leclercq**, p6, C2:3-24; 'Solve the problem indirectly' of applicant is illustrated by the 'aggregation process defines a complex class from a set of classes' which accomplishes the generation of a 'virtual class by assembling component classes' of **Leclercq**.) wherein during the processing of problem related data, the inference module identifies the solutions by applying knowledge representations in at least one of a sequential order, a hierarchical order, and a dynamically adaptive order. (**Leclercq**, p4 Figure 1; Examples of the 'Hierarchical order' is displayed in figure 1 in terms of the 'mediation objects hierarchy' and 'cooperation objects hierarchy' of **Leclercq**.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leclercq as set forth above, in view of Eager. (U. S. Patent 5960200, referred to as **Eager**)

Claim 9

Leclercq does not teach wherein the service system forwards problem data and solutions for further analysis by a human technician.

Eager teaches wherein the service system forwards problem data and solutions for further analysis by a human technician. (**Eager**, C7:60 through C8:2; 'Analysis by a human technician' of applicant is equivalent to manual implementation process' of Eager.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Leclercq by using a human expert as taught by Eager to have wherein the service system forwards problem data and solutions for further analysis by a human technician.

For the purpose of obtaining accurate results regardless of complexity.

Claim 10

Leclercq does not teach wherein the service system forwards problem data and solutions to the further computer in a format that allows analysis by an expert system in the further computer.

Eager teaches wherein the service system forwards problem data and solutions to the further computer in a format that allows analysis by an expert system in the

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further computer. (**Eager**, C6:16-38; 'Expert system' of applicant is equivalent to 'expert system' of **Eager**.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of **Leclercq** by using an expert system as taught by **Eager** to have wherein the service system forwards problem data and solutions to the further computer in a format that allows analysis by an expert system in the further computer.

For the purpose of utilizing the speed of an expert system to handle large workloads accuracy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Leclercq** as set forth above, in view of **Adendorff**. (U. S. Patent Publication 20020099563, referred to as **Adendorff**)

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Claim 8

Leclercq does not teach identify the solutions form set of predefined advices of the application; communicate questions to the user by composing the questions from predefined passages provided by the application.

Adendorff teaches identify the solutions form set of predefined advices of the application; communicate questions to the user by composing the questions from predefined passages provided by the application. (**Adendorff**, ¶0297, ¶0298; 'Identify the solutions form set' of applicant is equivalent to 'provides focus and scope to the set of measures' of Adendorff. 'Composing questions from predefined passages' of applicant is equivalent to 'the set of metrics required to answer one or more business questions' of Adendorff.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Leclercq by having the system respond with a question to narrow the area of analysis as taught by Adendorff to identify the solutions form set of predefined advices of the application; communicate questions to the user by composing the questions from predefined passages provided by the application.

For the purpose of providing efficient means to implement the invention.

Leclercq teaches analysis responses that the user enters in natural language. (**Leclercq**, P3, C1:35-47; 'Enters in natural language' of applicant is equivalent to 'queries using their own language' of Leclercq.)

Claim 13

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Leclercq does not teach wherein the main system executes an enterprise resource planning application.

Adendorff teaches wherein the main system executes an enterprise resource planning application. (**Adendorff**, ¶0175, ¶0177; 'An example of a 'enterprise resource planning application' of applicant is 'R/3' of Adendorff.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Leclercq by employing the invention as a resource planning tool as taught by Adendorff to have wherein the main system executes an enterprise resource planning application.

For the purpose of using a business application for business purposes.

Claim 14

Leclercq does not teach wherein the main system is implemented as an R/3 system.

Adendorff teaches wherein the main system is implemented as an R/3 system. (**Adendorff**, ¶0175, ¶0177; 'R/3' of applicant is 'R/3' of Adendorff.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Leclercq by using R/3 as taught by Adendorff to have wherein the main system is implemented as an R/3 system.

For the purpose of using a business application for business purposes.

Response to Arguments

5. Applicant's arguments filed on April 10, 2007 for claims 1-14 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

REMARKS

By the present Amendment, Applicant has amended claims 1, 5-8, and 12. Claims 1-14 remain pending in this application.

In the January 10, 2007 Final Office Action, the Examiner rejected claims 1-14 under 35 U.S.C. § 101 as being directed to non-statutory subject matter; rejected claims 1, 3, 5-7, and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,647,383 to August et al. ("August") in view of U.S. Patent No. 5,317,725 to Smith et al. ("Smith"); rejected claims 2, 4, and 14 under 35 U.S.C. § 103(a) as being unpatentable over August and Smith, in further view of U.S. Published Patent Application No. 2002/0073200 to Babutzka et al. ("Babutzka"); rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over August and Smith, in further view of U.S. Published Patent Application No. 2002/0133347 to Schoneburg et al. ("Schonenburg") and U.S. Patent No. 6,360,216 to Hennessey et al. ("Hennessey"); and rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over August and Smith, in further view of U.S. Published Patent Application No. 2001/0056379 to Fujinaga et al. ("Fujinaga").

Applicant respectfully traverses the rejections presented in the Office Action and requests allowance of the pending claims.

Rejection under 35 U.S.C. § 101

The Examiner rejected claims 1-14 for lacking a "substantial practical application." The Examiner further argues that, with regard to claim 1, "[s]olutions that are applied to solve a problem is vague and not a practical application." (Final Office Action, page 3, lines 1-2). Applicant has amended claim 1 to recite "wherein the identified solutions are applied to solve the problem identified in the main system," and assert that claim 1, as amended, serves a practical application. Accordingly, Applicant request the Examiner to withdraw the rejection under 35 U.S.C. § 101.

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Independent claims 7 and 12, while different in scope, recite limitations similar to that noted above with respect to amended claim 1. Accordingly, Applicant submits that claims 7 and 12 are directed to statutory subject matter and request the Examiner to withdraw the rejection under 35 U.S.C. § 101.

Examiner's response:

The applicant makes the argument "wherein the identified solutions are applied to solve the problem identified in the main system," is a practical application. It is not. There is no practical application stated and 'identified solutions' does not narrow the scope of the claims to a 'practical application.' Office Action stands.

7. In reference to the Applicant's argument:

fl. Rejection of claims 1, 3, 5-7, 9-12 under 35 U.S.C. § 103(a)

Applicant respectfully traverses the rejections of claims 1, 3, 5-7, and 9-12 under 35 U.S.C. § 103(a) because no prima facie case of obviousness has been established. As M.P.E.P. § 2142 states, "the Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness."

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). M.P.E.P. § 2142, 8th Ed., Rev. 5 (August 2006), p. 2100-125, 126.

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Each of these requirements must "be found in the prior art, and not be based on applicant's disclosure." M.P.E.P. § 2143.

Here, no prima facie case of obviousness has been established for at least the reason that the cited references fail to teach or suggest each and every element of claims 1, 3, 5-7, and 9-12.

Independent claim 1 recites, inter alia, "a knowledge module configured to receive the knowledge representations and store the knowledge representations with sets of semantically grouped solution identification rules." August and Smith, taken individually or in any proper combination, do not teach or suggest at least the above element of independent claim 1.

The Examiner asserts that the claimed "solution identification rules" are taught by August and argues that "[d]efining solution identification rules" of applicant is equivalent to "definitions of important features" of August." (Office Action, page 23, lines 21-25). However, the Examiner's assertion is incorrect. August is directed to information searching, such as an Internet search engine (August, Abstract). In addition to being able to retrieve data, the user may also retrieve associated features with that data. "Often there are features in the data items returned that are not obvious to the person using the system... they are the characteristics that are easily used to separate the highly referenced items from the rare items." (August, column 14, lines 12-20,). The Examiner appears to allege that these data "characteristics" supplied to the user constitute "solution identification rules," as recited in independent claim 1. However, this is not correct because the "characteristics" of August merely constitute information about search results that would not ordinarily be made available to the user, but do not disclose or suggest "solution identification rules," as recited in independent claim 1. Furthermore there is no solution being identified in August, but rather only information regarding search results. Accordingly, the characteristics of August are not related to a "solution," nor are they related to any "solution identification." Therefore, August does not teach or suggest storing "the knowledge representations with sets of... solution identification rules," as required by independent claim 1.

Moreover, there is no teaching or suggestion in August regarding the "solution identification rules" being "semantically grouped," as required by independent claim 1. In fact, August is completely silent with respect to these noted limitations.

Furthermore, Smith fails to cure the deficiencies of August. That is, Smith fails to teach or suggest "a knowledge module configured to receive the knowledge representations

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and store the knowledge representations with sets of semantically grouped solution identification rules," as recited by independent claim 1. Accordingly, August and Smith, whether taken alone or in combination, fail to teach each and every element of claim 1. For at least these reasons, the rejection of claim 1 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Independent claims 7, and 12, while different in scope, contain similar recitations as discussed above with respect to claim 1. As mentioned above, August and Smith fail to teach or suggest each and every element of claim 1. Therefore, August and Smith also fail to teach or suggest each and every element of claims 7 and 12 for similar reasons. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 7 and 12 under 35 U.S.C. § 103(a).

Claims 3, 5-6, and 9-11 depend from claims 1 or 7 and, therefore, require all elements thereof. As noted above, August and Smith fail to teach or suggest each and every element of claims 1 and 7. Therefore, August and Smith fail to teach or suggest each and every element of claims 3, 5-6, and 9-11 at least due to their dependencies. Therefore, the rejection of claims 3, 5-6, and 9-11 under 35 U.S.C. § 103(a) should be withdrawn.

Examiner's response:

Claims 9, and 10 are addressed by Eager in regards to human or expert systems analysis. 'Analysis by a human technician' of applicant is equivalent to manual implementation process' of Eager. (**Eager**, C7:60 through C8:2) 'Expert system' of applicant is equivalent to 'expert system' of Eager. (**Eager**, C6:16-38) Office Action stands.

8. In reference to the Applicant's argument:

111. Rejection of claims 2, 4, and 14 under 35 U.S.C. § 103(a)

Claims 2, 4, and 14 depend from independent claim 1 and, thus require all elements thereof. As noted above, August and Smith alone or in combination fail to teach or

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suggest each and every element of independent claim 1. Therefore, August and Smith fail to teach each and every element of claims 2, 4, and 14 at least due to their dependence.

Furthermore, Babutzka fails to cure the deficiencies of August and Smith. That is, Babutzka fails to teach or suggest "a knowledge module configured to receive the knowledge representations and store the knowledge representations with sets of semantically grouped solution identification rules," as required by independent claims 1. Therefore August, Smith, and Babutzka, taken alone or in combination, fail to teach each and every element of claims 2, 4, and 14, and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

1V. Rejection of claim 8 under 35 U.S.C. 103(a)

Claim 8 depends from independent claim 7. As discussed above, August and Smith do not teach or suggest each and every element of independent claim 7. Moreover, Schonenburg and Hennessey do not make up for the deficiencies of August and Smith. That is, Schonenburg and Hennessey do not teach or suggest receiving the knowledge representations by a knowledge module" and "storing the knowledge representations with sets of semantically grouped solution identification rules by the knowledge module of the service system," as recited in claim 7. Accordingly, August, Smith, Schonenburg, and Hennessey, individually or in any proper combination, do not teach or suggest each and every element of claim 8, at least due to its dependence from claim 7. Therefore, the Examiner should withdraw the rejection of claim 8 under 35 U.S.C. § 103(a).

V. Rejection of claim 13 under 35 U.S.C. 103(a)

Claim 13 depends from independent claim 1 and thus require all elements thereof. As noted above, August and Smith fail to teach or suggest each and every element of independent claim 1. Therefore, August and Smith fail to teach or suggest each and every element of claim 13 at least due to its dependence from claim 1.

Furthermore, Fujinaga fails to cure the deficiencies of August and Smith. That is, Fujinaga fails to teach or suggest "knowledge representations with sets of semantically grouped solution identification rules," as required by independent claim 1. Therefore August, Smith, and Fujinaga, taken alone or in combination, fail to teach or suggest each and every element of claim 13, and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Examiner's response:

Claims 8, 13, 14 are taught by Adendorff. 'Identify the solutions form set' of applicant is equivalent to 'provides focus and scope to the set of measures' of

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Adendorff. 'Composing questions from predefined passages' of applicant is equivalent to 'the set of metrics required to answer one or more business questions' of Adendorff. (Adendorff, ¶0297, ¶0298) 'An example of a 'enterprise resource planning application' of applicant is 'R/3' of Adendorff. (Adendorff, ¶0175, ¶0177) 'R/3' of applicant is 'R/3' of Adendorff. (Adendorff, ¶0175, ¶0177) Office Action stands.

Examination Considerations

9. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

10. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are

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entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

11. Examiner's Opinion: Paragraphs 9 and 10 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

12. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

'Generating a Production compiler from an Attribute Grammar': Farrow

'An expert-system shell using structured knowledge: an object-oriented approach': Leung,

'Integrating diverse CIM databases: the role of natural language interface': Wu

'Decomposition abstraction in parallel rule languages': Shioh-Yang Wu

'Business Object Component Architecture': Digre

'Trigger inheritance and overriding in an active object database system': Bertino,

'Toward Web-based application management systems': Gal

'A vector-based approach to software size measurement and effort estimation':

Hastings

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'Implementation of static semantic analysis of LOTOS specifications': Durante

'Dynamic semantics negotiation in distributed and evolving CORBA systems:
towards semantic-directed system configuration': Goedicke

'Architecture-based semantic evolution: a study of remotely controlled embedded
systems': Chung

'Architectural tradeoffs for a meaning-preserving program restructuring tool':
Griswold

'Semantic parsing as an energy minimization problem': Chan

'Semantic query optimization for tree and chain queries': Wei Sun

'A parallel system for text inference using marker propagations': Harabagiu

'Word semantics for information retrieval: moving one step closer to the Semantic
Web': Mihalcea

'Exploiting latent semantic information in statistical language modeling':

Bellegarda

'Integration of clinical information across patient records: a comparison of
mechanisms used to enforce semantic coherence': Rossi Mori

'Semantic networks and associative databases: two approaches to knowledge
representation and reasoning': Lim

'A knowledge-based system for patient image pre-fetching in heterogeneous
database environments - modeling, design, and evaluation': Chih-Ping

'Discrete-word recognition utilizing a word dictionary and phonological rules':

Itahashi

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'A new architecture of a speech understanding system - A hybrid of a hierarchical and a network models': Kobayashi

'A Framework For Discovering Knowledge From Distributed And Heterogeneous Databases': Buchner

'Learning from AI: New Trends in Database Technology': Bic

13. Claims 1-14 are rejected.

Correspondence Information

14. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:

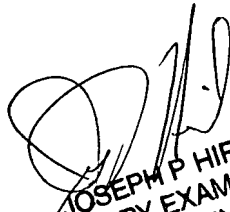
(571) 272-3150 (for formal communications intended for entry.)

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6/11/2007



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